

CLAIMS

1. A communication apparatus comprising:

a radio section that receives a radio signal to convert into a baseband signal;

5 a baseband signal processor that is reconfigurable to execute processing on the baseband signal; and

a reconfiguring section that reconfigures the baseband signal processor,

wherein the reconfiguring section reconfigures only
10 a portion of the baseband signal processor, the portion executing operation processing different among a plurality of radio communication systems.

2. The communication apparatus according to claim 1, wherein the baseband signal processor comprises a
15 synchronization section that establishes synchronization of communications, and a compensator that corrects amplitude or a phase of the baseband signal, and the synchronization section and the compensator are reconfigurable.

20 3. The communication apparatus according to claim 2, wherein the baseband signal processor comprises an FFT section that executes orthogonal transform on the baseband signal, and the reconfiguring section reconfigures a processing portion of the FFT section,
25 the processing portion varying with the number of items of data subjected to the orthogonal transform.

4. The communication apparatus according to claim 3,

wherein the synchronization section determines synchronization timing using a baseband signal obtained by demodulating a signal mapped on a subcarrier by the orthogonal transform in the FFT section.

5 5. The communication apparatus according to claim 2, wherein the baseband signal processor comprises a correlation section that executes correlation processing of the baseband signal, and the reconfiguring section reconfigures a combination of operations in the
10 correlation section.

6. The communication apparatus according to claim 5, wherein the synchronization section determines synchronization timing using a result of the correlation processing of the baseband signal in the correlation
15 section.

7. The communication apparatus according to claim 1, wherein the baseband signal processor comprises an error controller which performs error correction of the baseband signal or a retransmission request when the
20 baseband signal has an error, and the reconfiguring section reconfigures a processing portion of the error controller, the processing portion different among a plurality of error correction systems or error detection systems.

25 8. The communication apparatus according to claim 7, further comprising:

a storage section that stores a result of processing

of the error controller,
wherein the reconfiguring section reconfigures
connection with an output destination of content stored
in the storage section.

5 9. The communication apparatus according to claim 1,
wherein the reconfiguring section acquires information
required for reconfiguration from the radio signal
received in the radio section to reconfigure the baseband
signal processor.

10 10. The communication apparatus according to claim 1,
further comprising:

an interface section that reads out data stored in
the storage section,

wherein the reconfiguring section acquires information
15 required for reconfiguration from the storage section
via the interface section to reconfigure the baseband
signal processor.

11. The communication apparatus according to claim 1,
further comprising:

20 an interface section that receives information
required for reconfiguration, in wired connection,
wherein the reconfiguring section acquires the
information required for reconfiguration from the storage
section via the interface section to reconfigure the
25 baseband signal processor.

12. The communication apparatus according to claim 1,
further comprising:

an interface section that receives information required for reconfiguration, in specific power-saving radio communications,

wherein the reconfiguring section acquires the
5 information required for reconfiguration from the storage section via the interface section to reconfigure the baseband signal processor.

13. The communication apparatus according to claim 1, further comprising:

10 a radio-section communication section that relays communications between the radio section and the baseband signal processor; and

a CPU communication section that relays communications between the baseband signal processor
15 and the reconfiguring section, wherein the baseband signal processor is detachable.

14. The communication apparatus according to claim 13, further comprising:

an attaching/detaching detector that detects
20 attaching/detaching of the baseband signal processor; and

a first power source supplier which supplies power to the radio section, and when detaching of the baseband signal processor is detected, halts supply of the power
25 to the radio section.

15. The communication apparatus according to claim 1, further comprising:

a radio communication section that performs radio communications;

an application section that performs display, replay and edition of data of image, music and mail; and

5 a connector that relays communications between the radio communication section and the application section, wherein the radio communication section and the application section are separable, the radio communication section comprises a radio-section
10 communication section that relays communications between the radio section and the baseband signal processor, a CPU communication section that relays communications between the baseband signal processor detachable and the reconfiguring section, a first CPU, and an application
15 communication section that relays communications with the application section, and the application section comprises a call control communication section that relays communications with the radio communication section, a separation detector that detects separation
20 of the radio communication section, and a second CPU that halts communications to the radio communication section when separation of the radio communication section is detected.

16. The communication apparatus according to claim 1,
25 further comprising:

a radio communication section that performs radio communications;

an application section that performs display, replay and edition of data of image, music and mail; and

a connector that relays communications between the radio communication section and the application section, 5 wherein the radio communication section and the application section are separable, the radio communication section comprises a radio-section communication section that relays communications between the radio section and the baseband signal processor, a 10 CPU communication section that relays communications between the baseband signal processor detachable and the reconfiguring section, a first CPU, an attaching/detaching detector that detects attaching/detaching of the baseband signal processor, 15 a first power source supplier which supplies power to the radio section, and when detaching of the baseband signal processor is detected, halts supply of the power to the radio section, and an application communication section that relays communications with the application 20 section, and the application section comprises a call control communication section that relays communications with the radio communication section, a separation detector that detects separation of the radio communication section, a second power source supplier 25 which supplies power to the radio communication section, and when separation of the radio communication section is detected, halts supply of the power to the radio section,

and a second CPU that halts communications to the radio communication section when separation of the radio communication section is detected.

17. A communication apparatus reconfiguration method,
5 comprising:

reconfiguring only a portion that executes operation processing different among a plurality of radio communication systems on processing of a baseband signal;

receiving a radio signal to convert into the baseband
10 signal; and

executing the processing on the baseband signal.